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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION **USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

	As the below named inventor(s), I/we declare that:							
	This declaration is directed to:							
		The attached a	The attached application, or					
		Application No. <u>09/827,013</u> , filed on <u>05 April 2001</u> ,						
	as amended on (if applicable);							
	I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;							
	I/ we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;							
	I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and							
	All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.							
_	FULL NAME OF INVENTOR(S)							
	TULL NAME OF INVENTO		Date:	200				
	signature:	Gitizen of:	US					
lr	nventor twoTREAL	WAY, Joseph A.	Date:		1			
s	ignature:	·-	Citizen.of:	US				
lr	nventor three <u>WATS0</u>	ON, Andrew R.	Date:					
s	ignature:		Citizen of:	UK				
lr	ventor four		Date:		1			
s	ignature:		Citizen of:					
ı	Additional inventors are be	eing named on add	ditional form(s) attached h	nereto.	1			

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the Burden Hour Statement: This collection of information is required by 35 U.S.C. 113 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentialities governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PA 3137108 v2 Attorney Docket No.: 199160^^700

PTO/SB/01A (10-00)

Approved i e through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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$\boxtimes$	Application No. <u>09/827,013,</u> filed on <u>05 April 2001</u> ,					
	as amended on	(if applicable);				
I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;						
I/ we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;						
known to me/us to be materia which became available bel	I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and					
All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.						
FULL NAME OF INVENTOR(S)						
Inventor one <u>EMPEDOC</u>		Date:				
Signature:	· · · · · · · · · · · · · · · · · · ·	Citizen of: US				
Inventor two TREADWA	Y, Joseph A.	Date: 6/5/200/				
Signature:	Tradung	Citizen.of: US				
Inventor three WATSON,	Andrew R.	Date: 6/4/2021				
Signature: A.R. W.t.	6	Citizen of: UK				
Inventor four		Date:				
Signature:		Citizen of:				
☐ Additional inventors are being named onadditional form(s) attached hereto.						

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. PA 3137108 v2

**POWER OF ATTORNEY OR** 

**AUTHORIZATION OF AGENT** 

PTO/SB/81 (02-01)

DIFFERENTIABLE SPECTRAL BAR

CODE METHODS AND SYSTEMS

09/827,013

04/05/2001

EMPEDOCLES et al.

Approved for use through 10/31/2002. OMB 0651-0035
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**Application Number** 

**First Named Inventor** 

Filing Date

**Group Art Unit** 

Title

	Examiner Name						
	Attorney			Attorney Do	cket Number	19916003700	
	<del></del>				· · · · · · · · · · · · · · · · · · ·		
AND			2035	0		Place Customer Number Bar Code Label here	
☑ Practitioner(s) named below:						and the second	
	Name					ation Number	
		KENNETH BARC	VSKY, E	ESQ.		36,442	
as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.							
Please chan	ige the cor	respondence add	ress for th	he above-identif	ed application to:		
☐ The above-mentioned Customer Number.  OR							
Firm or Individual Name		IISH					
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Address							
City				Sta	ite	ZIP	
Country							
Telephone			F	ax			
I am the:							
Applicant/Inventor.							
Assignee of record of the entire interest. See 37 CFR 3.71.							
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).							
SIGNATURE of Applicant or Assignee of Record							
Name KENNETH BARDONSKY, P. & Intellectual Property Counsel							
Signature (1)							
Date	Date 11 TVN Ø1						
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.							
*Total of 1 form(s) is submitted.							

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any Comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. PA 3148198 v3

PTO/SB/96 (08-00)

Approved for 1 rough 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office. \_.S. DEPARTMENT OF COMMERCE

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Attorney Docket No. 19916003700

STATEMENT UNDER 37 CFR 3.73(b)						
Applicant/Patent Owner: EMPEDOCLES, et al.						
Application No./Patent No.: 09/827,013 Filed/Issue Date: 04/05/2001						
Entitled: DIFFERENTIABLE SPECTRAL BAR CODE METHOD	DS AND SYSTEMS					
QUANTUM DOT CORPORATION, aCaliforni	a Corporation					
(Name of Assignee) (Type of Assigne	e, e.g., corporation, partnership, university, government agency, etc.)					
states that it is:						
1.						
2. an assignee of an undivided part interest						
in the patent application/patent identified above by virtue of either	r:					
A.						
OR						
B. A chain of title from the inventor(s), of the patent application shown below:	on/patent identified above, to the current assignee as					
1. From:  The document was recorded in the United States Patent and Trademark Office at  Reel, Frame, or for which a copy thereof is attached.						
2. From:	o :					
The document was recorded in the United States Pat						
Reel, Frame, or for which a copy thereo	of is attached.					
3. From:	o :					
The document was recorded in the United States Patent and Trademark Office at						
Reel, Frame, or for which a copy thereo	or is attached.					
Additional documents in the chain of title are listed on a supplemental sheet.						
Copies of assignments or other documents in the chain of title are attached.						
[MOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8]						
The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the assignment.						
The undersigned (whose due is supplied below) is empowered to sign this statement on behalf of the assignee.						
Date Of	Signature					
Date						
KENNETH BAROVSKY  Typed or printed name						
	VICE PRESIDENT & INTELLECTUAL PROPERTY COUNSEL					
	Title					

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



UNITED STA .S DEPARTMENT OF COMMERCE Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

OCTOBER 22, 2001

PTAS

TOWNSEND AND TOWNSEND AND CREW LLP MARK D. BARRISH
TWO EMBARCADERO CENTER
8TH FLOOR
SAN FRANCISCO, CALIFORNIA 94111-3834



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/06/2001

REEL/FRAME: 012082/0506

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR''S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

EMPEDOCLES, STEPHEN A.

DOC DATE: 06/07/2001

ASSIGNOR:

TREADWAY, JOSEPH A.

DOC DATE: 06/05/2001

ASSIGNOR:

WATSON, ANDREW R.

DOC DATE: 06/04/2001

ASSIGNEE:

QUANTUM DOT CORPORATION 26118 RESEARCH ROAD HAYWARD, CALIFORNIA 94545

SERIAL NUMBER: 09827013

PATENT NUMBER:

FILING DATE: 04/05/2001

ISSUE DATE:

### 012082/0506 PAGE 2

SEDLEY PYNE, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

		7000		08-22-	2001	ıttorı	Docket No. 019	916-003700US
Rev. 03-0 DMB No. 0	0651-0027 (e	AUG U 6 20	n 22 33	10181		t		rtment of Commerce nd Trademark Office
rab sett	tings ⇔ ≒	o Honor Market	missioner of	7 U 1 O 1	Please record the	attached origin	nal documents or con-	v thereof
1. Nam	To the Honoras emmissioner of recents and Trademarks.  Name of conveying party(ies):					ddress of rec	eiving party(ies)	
EMPEDOCLES, STEPHEN A. TREADWAY, JOSEPH A. WATSON, ANDREW R.							M DOT CORPORAT	
Additiona	al name(s)	of conveying parti	es attached?	⊠ Yes ☐ No.	Street Addr	ecc.		
3. Natu	re of conv	eyance:			•			
2	⊠ Assign	ment		Merger	City: H	ayward	State: <u>CA</u>	_ZIP: <u>94545</u>
[	Securi	ty Agreement		Change of Name	Additional nam	es and addre	sses attached?	Yes ⊠ No
	Other:							
Execution	on Date: _	06/04/01: 06/0	5/01; AND	06/07/01				
4. Appl	ication nu	mber(s) or pate	nt number(s	s).	I			
If thi	s docume	nt is being filed	together wi	th a new application, th	e execution date	of the applica	ation is:	
A.	Patent A	pplication No(s)	: 09/8	27,013	B. Patent	No(s):		
				Additional numbers at	ached?  Yes	⊠ No		
<ol> <li>Name and address of party to whom correspondence concerning document should be mailed:</li> </ol>					Total number of applications and patents involved 1			
Name:	TOWNSEND AND TOWNSEND AND CREW LLP				7 CFR 3.41):	\$ <u>4</u>	0.00 /	
	San Fran	wo Embarcadero Center, 8 <sup>th</sup> Floor an Francisco, California 94111-3834 .15) 576-0200			☐ Authorized to be charged to deposit account			
					8. Deposit account number: 20-1430			
					(Attach duplicate	copy of this pa	age if paying by depo	sit account)
				DO NOT US	E THIS SPACE			
То		nd signature. of my knowledge	and belief,	the foregoing is true a	nd correct and ar	ny attached c	opy is a true of cop	y of the original
	Mark D. Barrish Name of Person Signing Atty. Reg. No. 36,443  Mark D. Barrish Signature  3 AUGUST 2001 Date							
				umber of pages including			cument 3	
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PA 3161	1562 v1			Washington	, D.C. 20231			
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40.00 CH

FC:581

Atty. Docket No.: 19916-003700

#### ASSIGNMENT OF PATENT APPLICATION

**JOINT** 

WHEREAS, STEPHEN A. EMPEDOCLES, of 2507 Mardell Way, Mountain View, CA 94043; JOSEPH A. TREADWAY, of 34736 Bowie Common, Fremont, CA 94555; and ANDREW R. WATSON, of 1 Spring Lane, Belmont, CA 94002; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

DIFFERENTIABLE SPECTRAL BAR CODE

METHODS AND SYSTEMS

Filing Date:

April 5, 2001

Application No.:

09/827,013; and

WHEREAS, QUANTUM DOT CORPORATION, located at 26136 Research Road, Hayward, CA, 94545, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same:

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: STEPHEN A. EMPEDOCLES

Dated: JOSEPH A. TREADWAY

Dated: ANDREW R. WATSON

PA 3109098 v2

Atty. Docket No.: 19916-003700

#### ASSIGNMENT OF PATENT APPLICATION

**JOINT** 

WHEREAS, STEPHEN A. EMPEDOCLES, of 2507 Mardell Way, Mountain View, CA 94043; JOSEPH A. TREADWAY, of 34736 Bowie Common, Fremont, CA 94555; and ANDREW R. WATSON, of 1 Spring Lane, Belmont, CA 94002; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

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METHODS AND SYSTEMS

Filing Date:

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IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated:	
	STEPHEN A. EMPEDOCLES
Dated: 6/5/2001	JOSEPH A. Treadury
Dated: 6/4/2001	A.R. ANDREW R. WATSON

PA 3109098 v2